selfish sense, business men, nor are they as a general rule overburdened with this world's goods. It behoves them henceforth to take more care as to their future in case of illness or physical infirmity, and not to trust to the gratitude or generous impulse of the Treasury Department.

In old days it was the custom when a man distinguished in science was brought into a high position in the Civil Service that he was credited with a certain number of years' service ranking for pension. This practice has been done away with and a bargain system substituted. A short while ago the growing agonies of heart disease caused Dr. Copeland to feel that he was less able to carry on the duties of his post, and he determined to resign; but he learnt that under the scale, and in the absence of any special bargain, the pension he would receive would not suffice for the necessities of life. The only increase his friends were able to get from the Treasury was an offer to allow him about half-a-crown a week extra by way of a house.

Indignant and ashamed of my Government I persuaded Dr. Copeland to withdraw his resignation and to retain the official position which he has honoured till his death.

I trust, Sir, that this memorandum of mine may cause eminent men of science who are asked to enter the service of the State when already of middle age to take heed for their future welfare.

I am, Sir, your obedient servant,
CRAWFORD.

2 Cavendish Square, October 28.

The number of years *given by Act of Parliament* was twenty, because the ordinary civil servant joined at twenty to learn his work, and men of science joined at about forty because they had to learn it before they were of any use to a Government department.—[ED.]

THE BRITISH SCIENCE GUILD.

THE inaugural meeting of the British Science Guild, the organisation and objects of which were stated in NATURE of October 12 (vol. lxxii. p. 585), was held at the Mansion House on Monday, October 30. The Lord Mayor presided. Among those who had accepted the Lord Mayor's invitation to attend were the following:—

The Bishop of Ripon, Lord Strathcona, Mr. Haldane, K.C., M.P., Sir Norman Lockyer, Lady Lockyer, Sir Michael Foster, Sir William Ramsay, Lady Ramsay, Sir J. F. Maurice, Sir J. Wolfe-Barry, Sir W. Bousfield, Sir G. T. C. Bartley, Sir E. W. Brabrook, Sir C. Bridge, Sir Lauder Brunton, Sir A. Geikie, Sir W. Mather, Sir H. T. Wood, Dr. G. T. Beilby, Dr. Caird, Captain Creak, Dr. Ferrier, Dr. W. Garnett (represented by his son), Mr. Gifford, Dr. Glazebrook, Prof. Gowland, Mr. R. A. Hadfield, Prof. J. Larmor, Prof. Lealey, Dr. Lockyer, Mr. C. W. Macara, Prof. Meldola, Prof. Perry, Mr. J. H. Reynolds, Dr. Shaw, Mr. A. Siemens, Mr. Swinburne, Rev. T. R. Stebbing, Mr. Carmichael Thomas, Prof. S. P. Thompson.

The following are extracts from letters expressing regret at inability to attend the meeting.

Mr. Chamberlain:—

"I am very sorry to find that I cannot possibly be in London on Monday the 30th inst. . . . I very much regret that I cannot take an active part in the meeting on this occasion, but possibly some more convenient opportunity for showing my interest may occur at a later time."

Lord Roberts:—

"I am very sorry to refuse the request contained in your letter of the 12th instant, but I have so much on hand at present that I could not manage to attend. . . . I recognise the value of the Guild and wish I could help it."

Lord Rayleigh:—

"I fear I shall not be able to come to the meeting . . . but I shall be very pleased to join in the movement and become a vice-president if desired."

The following report of the meeting is reproduced, in great part, from Tuesday's *Times*:—

The Lord Mayor in a few words welcomed those who had accepted invitations to be present, and called upon Sir Norman Lockyer to read the report of the organising committee.

Sir Norman Lockyer, having read the report, said that the organising committee was grateful for the consent the Lord Mayor so readily accorded to them to hold their first meeting at the Mansion House. He had every hope that under such auspices the guild might do for British national endeavour in the future what so many ancient guilds, each in its special line of action, were founded to do in the long past. When his own views as to the importance, nay the burning necessity, of such a movement as that throughout the land, among all classes, and in touch with all employments, were expressed some time ago, he suggested that it might be brought about by extending the functions of some existing organisation, such, for instance, as the British Association; but he was soon made to see that that was to take a too narrow view of the matter. It was not a question merely of science and scientific men; it was a question of conducting all our national activities, State service, private service, and what not, under the best possible conditions with the greatest amount of brain-power. To show that it was not a question only for scientific men, he would just refer for a moment to the matter of education. He yielded to none in respect for those studies which embraced ancient civilisations and their literatures, but they alone were as incapable of forming the complete man as would be instruction in the mere facts of science apart from the actual use of the methods of observation and discovery. A complete education must be based upon things and thinking, as well as upon words and memory. We wanted one kind of education for everybody—the best. We wanted that education carried as far as possible in the case of each individual, whether the time for education was long or short. No one should be stopped, save by his own incapacity, from proceeding further down the fair stream of education which should make the complete man, both educationally and physically. We want that stream freed from the impediments with which it was at present dammed—they might spell the word as they liked. These impediments were many of them needlessly hurtful, and most of them unnecessary from a large point of view.

Indeed, they wanted to revert to the ideal of the ancient university, from the curriculum of which *natura rerum* was never absent, and in which the poor student was always cared for. The western world was wondering at the efficiency of both the navy and the army of Japan. There was really nothing to wonder at. Most of the reasons suggested for what had happened were, he held, entirely wrong. If the Japanese religion or the old Japanese civilisation had been in question, then China would have followed suit. What really had happened in Japan was that for the last thirty years everybody, from the Mikado to the smallest boy and girl, had been taught to think. They had been dealing with things as well as words in their schools, and they represented at the present moment the *maximum* of efficiency and brain-power as the result of that treatment. Mr. Chamberlain, Lord Rosebery, and others had referred to the great relative advance of the commerce and industry of Germany and the United States. He would again point out that these were examples of lands with complete and numerous State-aided universities. Surely it was more than a coincidence when we found in those lands the State service and all the national activities carried on in the full light of modern science by men who had received a complete training. If the guild helped us in any way to improve our national position in this respect it would not have been founded in vain, but there was certainly much for it to do along many lines.

The Bishop of Ripon moved the first resolution:—

"That the Right Hon. R. B. Haldane be elected president of the British Science Guild." He said they had met together to enforce as far as they could what had fallen from Sir Norman Lockyer's lips. He supposed that all of them who had reflected would realise that the time had come in which it was desirable that an organisation specifically directed to that end should take its place among the useful institutions and associations of this country. He was quite sure that those who had thought hitherto of the somewhat aimless way in which the benevolent had gone about their work and the somewhat haphazard way in which, indeed, some of the industrious had pursued theirs, must realise that those ways were not likely to conduce to the general welfare, or even to conduce to the very object which the benevolent and the industrious had in view. He knew there were some who still looked askance at the words science and scientific method, and they had a sort of dim idea that science and scientific methods had come to destroy some of the most beautiful instincts of our nature. They were inclined to say to people that the new fangled notions had come in to incommode them in their activities, to destroy their cherished notions, and to check their benevolent intentions. But that was to misunderstand, as he took it, the whole situation. No person, however devoted he might be to the cause of science and scientific method, believed for a moment that science would be able to create faith or to create charity. They might, however, do a great deal to give confidence to faith, and certainly might guide the feet of charity into the ways and methods of wisdom. The value of applying science and scientific methods to all forms of human endeavour lay in the simple fact that there was the educating power which charity and benevolent impulse so generally and so legitimately desired. Everyone desired to help the needy; but who did not know that the methods of indiscriminate charity had really ended in defeating the ends which the charitable had in view? But the scientific study of economic conditions was capable of putting into the hands of the charitable the proper method of dealing with the needy. He could only recall to their minds what an eminent Frenchman said in speaking of France after the war. He said, speaking of his fellow-countrymen and of the subject which had occupied Sir Norman Lockyer's mind that day—namely, the subject of general and specific education from a national standpoint—that they had been defeated, not by Bismarck and Moltke alone, but by Kant and Hegel, Goethe and Schiller and Humboldt, and other great minds which Germany had produced. They had been defeated, in fact, he said, by the brain—the educated brain and the scientific method of those who contended against them. It was not the victory of arms alone, but the victory of brain brought to bear upon the field of war. He could imagine two classes of men becoming strongly and earnestly interested in this endeavour. He could understand the benevolent saying, "Teach us how to do good," and he could understand those who were interested in the prosperity of the nation saying, "Teach us how best to procure it." The benevolent mind was constantly brought into anxiety and suspense by questions of solicitude concerning the safety and the health of our fellow creatures, but here was a simple method by which science might come and say to the benevolent, "We are helping you to prepare the way." Let him direct their attention to two great institutions which existed, one in Holland and the other in Germany. There were two museums, called Museums of Safety, the purpose of which was to show in working models every appliance which had been devised by the care and the study of scientific men and experts for the protection of life and limb, for the promotion of health, for preventing the accident in the mine, the accident in the mill, the danger to health arising from noxious vapours in some of our great places of employment, and the accumulated dust which gets into the lungs of the worker. These and other important matters affecting the safety and the welfare of the people were dealt with in these museums. People were taught the best method of feeding their children by showing them what might be called the various values, the health values, of foodstuffs. They were shown also in economical fashion how a house might be built. These museums existed, and, with their working models, were open five days in the week for the inspection and instruction of the public. What were those great Museums of Safety which they found in Charlottenburg and Amsterdam but living witnesses of how scientific methods might be brought to bear on the protection of the health and life of the people of the world? Our manufacturers, and perhaps our farmers, had been content to go on in what might be called jogtrot ways, not watching how far knowledge had advanced beyond them, and the mere rule of thumb and the traditional methods had prevailed sometimes to the detriment of industry, often to that of the consumer. Those things were precisely the way in which that Science Guild might come forward and do what had been done in Germany, so that there might be places where the manufacturer and farmer might go and get scientific advice of the best character. Those were things which meant the one thing for which the guild had come into existence—namely, the application of scientific methods to human endeavours throughout the world. Precisely because the pressure of the competition of the world had become so great it was for us to say that the old England that we loved and were proud of should hold her place among the nations of the world, and as she had the courageous heart and the enthusiastic spirit so also she should be given the clear-thinking brain and the well-studied handicraft and industry. The urgency of the thing was clear, and the only way in which it could be applied was clear also. He concluded by proposing Mr. Haldane as president, and spoke of him as one who knew what was necessary for the public good, and essential for its industrial prosperity, and who added to that the weight of his name and the strong position which he held in the legal and political world.

Lord Strathcona seconded the motion. In doing so he said that it must be a great relief and satisfaction to all of them to find that they had placed before them something which savoured in no sense of party politics—an object which was for the general good.

Sir W. Mather supported the motion. He said that in this country we had the foundations for the highest scientific industry the world possessed. We had in many of our industries the most brilliant scientific methods and processes. We had plenty of science in England; we knew what the Germans knew, and what the Americans knew. The trouble was that the people of England had not been trained to enable them to use largely the methods of science and the principles of science which the people of other countries—not the select men, not the men specially gifted, not the men of genius only, but the men who had the conduct, even in subordinate positions, of some of the departments of scientific manufacture—possessed. The association had for one of its objects the promotion of scientific education throughout the Empire by encouraging the universities and other institutions, where the bounds of science were extended, or new applications of science were devised. What men like himself looked for in adopting scientific methods generally throughout their workshops was the foreman class, the subordinate managers, the managers who could carry out the advanc of science which emanated from the top. He had just returned to England after four months' absence in the United States, and he found, while in America, that the whole tendency and trend of American thought and feeling was to take masses of their young men and train them, so that they might take their part not as managers, employers, capitalists, and so on, but as workers in their industries. That society had before it its greatest work in looking to the education of the people of England. It should work upon the Government of the day, Liberal or Conservative, and take care that there should be sufficient expenditure and sufficient convenience provided throughout the length and breadth of the land to enable our young people to have some opportunities in their lives like those which were afforded to the young people of the United States.

The resolution was carried unanimously.

Mr. Haldane, who was received with cheers, said he gratefully acknowledged that resolution and the honour which they had conferred upon him in electing him president of that new organisation. He did not know that he had other qualifications for it than this—that the matter was one which interested him intensely. Nearly ten years ago, when the political party to which he belonged went out of office, he looked about for something to do, and he thought he might as well turn his hand to the somewhat cobwebbed state of the higher education of this country. After a time he approached the Government, and he found them sympathetic, and they had remained throughout that period sympathetic. There were those who said that some time or other they would go out and another Government come in. He hoped in the same way to have a chance of approaching that Government and trying to persuade it to be sympathetic. Why was it that so many people had come together that day—people of different minds but converging upon the same idea—to call for an activity which should be unhasting and unresting, the organisation of the higher science in its application to the affairs of this country? He thought it was because almost every year in an increasing fashion brought us in this nation an awakening. We were not the only nation which had received an awakening. Japan wakened up the nations of the West from their dogmatic slumber not long since, and we had perhaps not even yet assimilated the lesson which that awakening had taught the world. He agreed with Sir Norman Lockyer that that organisation ought not to mean merely science. It ought not to mean merely instruction; it ought to mean the bringing of method, the bringing of thinking, into the modes of government which applied to our public affairs and which applied to our private industries alike. That was what we wanted, and without that we should fall behind, and that kind of organisation meant science, and it meant education. The Bishop of Ripon alluded to the question of the Poor Law. There was a very interesting pamphlet which was published the other day, and which he commended to all of them who had not read it—the report of the Birmingham brass-workers on what they found when they went to Berlin to compare the condition of the working men of their own trade with that of similar working men in the German capital. One thing which they discovered was that in Germany the unemployed question had been to a great extent solved. There were two ways in which they could deal with the unemployed question without solving it. One was to do nothing at all, but say that so-called economic laws must work their way. That view, he thought, opinion nowadays condemned. But there was another way which he hoped the nation would condemn just as severely, and that was to grant public money in response to any demand which was made by ignorant people without recognising the fact that steps of that kind merely meant that one got a body of honest but weak people who came to depend, not on their own exertions, but on what the State would do for them. The brass-workers found organisation. They found that science had been set to work to solve the problem of the unemployed. They found that the unemployed were sifted out by State, municipal, and private charitable organisations directed and employed by the State. They were sifted into classes. Those who wanted work and could not get it were provided for to almost a complete extent by the cooperation of the Government and the employers and the municipalities. Those who had not got work and did not want it were put into places which were not prisons, but where they were forced to work for a very moderate wage, which was saved up for them and given to them afterwards. The Birmingham brass-workers came back with the view that the provision for the German brass-worker was superior to anything even in Birmingham. They were too enthusiastic. He had lived in Germany, and he knew that the things they saw there would never be tolerated in this country. From the cradle to the grave the German was ruled. Paternal government was exercised over him, well aided by what he might, figuratively speaking, call the birch rod. At no point of his existence was he a free man, and the result was that in Germany to-day there was something like a revolt, and an aspiration for our British freedom. A pamphlet had been published on the Germans and their Fatherland, in which a plea was put forward for the study and imitation of English institutions. It had had an immense circulation in Germany, and ought to be translated into English. The writer advised his readers to go to see Eton and Harrow, where there might not be much learning, but where the boys ruled the school, set up public opinion among themselves, and as a result turned out governors of men and patriots, instead of men who, like the Germans, when they left their country felt in the recollection of their schools that they had left an almost prison life. That great German authority was under the same delusion as the Birmingham brass-workers. He was too enthusiastic. But in that pamphlet the German Emperor was quoted as making the observation that the real truth about the matter lay between the German and the British systems. We had to see how we could get the German faculty of organisation, train people to think more of it, and apply it to the various departments of our affairs. Our executive Government was about as disorganised an institution as anybody could conceive. Suppose they wanted to appoint a man of high scientific mind as an official. They were at once told that it would be against the rules of the department. In vain they would reply they were bringing in a man of science for public purposes; the answer would be that the Civil Service rules made it difficult to do anything of the kind. Some of them had been trying to impress upon the nation that the organisation of the highest education of the universities ought not to be left to haphazard. He was chairman of a committee which sat last year, and they made a report which had been more lucky than most reports. One of its recommendations related to the grants to the university colleges of this country, and was that a scientific advisory body should be created and put at the elbow of the Treasury to advise it in giving money to the universities. He was glad to say that a sympathetic Chancellor of the Exchequer had adopted that suggestion, and in the course of the winter they would learn who the advisory members were to be. Let them take another department—the Board of Trade. The Board of Trade ought to be a great ministry of commerce. We had a vast home trade as well as a vast foreign trade, and the statistics relating to them should be of the most authoritative kind. There was the same necessity for scientific methods in relation to the Home Office and the departments with which it dealt. For himself he believed that things would not be right until we had a scientific corps under a permanent committee, just as the Defence Committee was under the Prime Minister to-day. He meant a body that would not consist merely of officials of the ordinary kind, but should consist of the most eminent men of science, who would go there because they were honoured and put on the footing upon which they deserved to be placed, and were recognised as a body of men who would be at the elbow of the department, and could organise the scientific work of the State. He hoped that if they got to that, the example of a Government adopting science would be followed by the municipalities, as he believed it was going to be followed more and more by our manufacturers. There was great work for that association to do. We lived in a country where science was not so much appreciated as it should be. Our people liked to see cash over the counter, and they did not like to wait for deferred payment. But we were waking up, and we had this enormous advantage, that our very individualism had produced some of the finest scientific talent of the world. He did not like to mention men on that platform, though he could do so, whose names ranked with the highest of the world. We had produced, to speak of those who were absent, our Kelvins, our Rayleighs, our J. J. Thomsons, than whom the world had no greater, to say the least of it. He had no doubt that if the British nation were given a chance it could beat the world. But we wanted knowledge. This was a new century; we had a new Sovereign; we might have a new Parliament; we should have a new chance. Let us see to it that we used our opportunities. The midnight call had come, let us take heed that we were ready. Knowledge was power. That was the great lesson of to-day. Let us hold to it that knowledge was power, and that without knowledge there was no real power in these times of intense competition.

Mr. C. W. Macara (president of the Federation of Master Cotton Spinners' Associations) moved:—"That those whose names are given in the provisional list as vice-presidents and officers of the British Science Guild be elected in those capacities and asked to serve."

This list is as follows:—

Vice-presidents: The Right Hon. the Lord Mayor of London, Sir Lawrence Alma-Tadema, O.M., R.A., the Right Hon. Lord Alverstone, G.C.M.G., F.R.S., Lord Balcarres, M.P., the Right Hon. the Earl of Berkeley, Admiral Sir Cyprian Bridge, G.C.B., Sir William Broadbent, Bart., K.C.V.O., F.R.S., Sir Walter Buller, K.C.M.G., F.R.S., Sir J. Burdon-Sanderson, Bart., F.R.S., Major-General Sir Owen Tudor Burne, G.C.I.E., K.C.S.I., the Right Hon. Joseph Chamberlain, M.P., F.R.S., Sir William Church, Bart., K.C.B., Sir George Sydenham Clarke, K.C.M.G., F.R.S., Sir John Colomb, K.C.M.G., M.P., the Right Hon. the Earl of Donoughmore, the Right Hon. Earl Egerton of Tatton, Sir John Eliot, K.C.I.E., F.R.S., Sir Michael Foster, K.C.B., M.P., F.R.S., the Right Hon. Sir Edward Fry, F.R.S., Sir Archibald Geikie, F.R.S., Mr. F. Du Cane Godman, F.R.S., the Right Hon. Sir John Gorst, K.C., M.P., F.R.S., the Right Hon. Lord Haliburton, G.C.B., Sir Joseph Hooker, G.C.S.I., F.R.S., Sir Alfred Jones, K.C.M.G., the Right Hon. Viscount Knutsford, G.C.M.G., Prof. Ray Lankester, F.R.S., Dr. J. Larmor, F.R.S., Mr. C. W. Macara (president of Federation of Master Cotton Spinners' Associations), Sir Charles McLaren, Bart., K.C., M.P., the Right Hon. Sir Horace Plunkett, K.C.V.O., F.R.S., the Right Hon. Lord Rayleigh, O.M., F.R.S., Prof. Rhys, the Lord Bishop of Ripon, Mr. E. Robertson, K.C., M.P., the Right Hon. Lord Tennyson, P.C., G.C.M.G., Sir Philip Watts, K.C.B., F.R.S., His Grace the Duke of Wellington, K.G., G.C.V.O., Sir John Wolfe-Barry, K.C.B., F.R.S.; *chairman of committees:* Sir Norman Lockyer, K.C.B., F.R.S.; *vice-chairmen:* Sir William Abney, K.C.B., F.R.S., Sir Lauder Brunton, F.R.S., the Right Hon. Sir John Cockburn, K.C.M.G., Sir Gilbert Parker, M.P.; *trustees:* the Right Hon. Lord Strathcona and Mount Royal, G.C.M.G., Sir Henry Roscoe, F.R.S.; *hon. treasurer:* the Right Hon. Lord Avebury, F.R.S.; *hon. assist. treasurer:* Lady Lockyer, 16 Penywern Road, S.W.; *hon. secretary:* Mr. C. Cuthbertson, *pro tem.*

Admiral Sir Cyprian Bridge seconded the motion. In doing so he said that the officers of the Japanese navy had frequently mentioned to him the satisfaction it was to them, and the benefit it had been to them, to have been brought up by officers of the British Navy.

The resolution was agreed to.

Sir J. Wolfe Barry moved:—"That the president, vice-presidents, and officers and the other members of the Guild mentioned in the provisional list be elected members of the general committee of the Guild." He said that the movement must be looked upon as an educational movement, to educate the people at large and the Government and political parties not to undervalue the great resources of science in the development of the kingdom. Much had been done, and he had only to look back on the progress of the nineteenth century to see how leading a part science had taken in the development of the nation. But everybody must admit that we must not rest and be thankful for what had been done. An immense amount remained. This country must not stand still. It had the most vigorous competitors, who brought all the product of science into the contest which they waged against us in so many industrial and social ways. The business of that guild would be, he thought, to urge everybody to go forward in hope, and we must not suffer ourselves to be left behind by the development of other nations from whom we might learn much. At the same time, he firmly believed that this country had nothing to fear if only it were true to itself.

Major-General Sir J. F. Maurice seconded the resolution, which was passed.

Sir W. Ramsay moved a vote of thanks to the Lord Mayor. In doing so he said that in England we had a great deal of scientific ability. Much of it was organised, but its application to the affairs of the State, to the Army, to the Navy, to the service of the nation at large, could be very much better organised than it was. The object of that guild was to attempt to effect that organisation, which was so much required. If that was so he was sure they would all agree that to promote the object of that guild was one of the most important tasks which the nation could undertake. He hoped they would all unite to promote that object and gain adherents for the guild, with the result that before many years we should be less of a disorganised rabble and more of an organised army than we were now.

Dr. Robert Caird seconded the motion, which was heartily carried.

NOTES.

We regret to announce that Prof. Ralph Copeland, Astronomer-Royal for Scotland and professor of astronomy in the University of Edinburgh, died on October 27, at sixty-eight years of age.

Captain F. W. Hutton, F.R.S., curator of the Canterbury Museum, Christchurch, New Zealand, and president of the New Zealand Institute, died on October 27 while returning home by the R.M.S. *Rimutaka* at the conclusion of a visit to England. He was sixty-eight years of age, and was elected a Fellow of the Royal Society in 1892.

An interesting gathering of the old pupils of Mr. Francis Darwin, F.R.S., formerly reader in botany, was held in the botany school of the University of Cambridge on October 28, when his portrait, by Mr. W. Rothenstein, was presented to the botanical department by a body of subscribers, all formerly his pupils. To Mr. Darwin himself was presented a handsome book containing autographs of his pupils. Speeches were made by members of the staff and by other botanists regretting the severance, after twenty-one years, of Mr. Darwin's connection with the botanical department.

At a meeting of the general committee of the British Association held on Tuesday, Leicester was adopted as the place of meeting of the association in 1907 by the following resolution, which was passed unanimously:—"That having regard to the fact that no meeting of the Association has as yet been held in Leicester, the general committee decides to accept the cordial invitation from that town, and at the same time expresses its most hearty appreciation of the kind and courteous invitation from the city of Dublin, and ventures to express the hope that the invitation may be renewed at an early date."

On Monday, October 30, a strong earthquake shock, lasting four seconds, was recorded at Catanzaro in the afternoon; and two earthquake shocks, one rather marked and the other slight, were observed at Monteleone in the evening.

We have received a letter from Dr. Faulds in which he replies to the review of his book on October 19 (supplement, p. iv). The more important part of his letter lies in the assertion that he *had* devised a method of classifying finger-prints. Where can an exact description of his method be found? His book contains only generalities about it, and his present letter goes no further.

At the annual general meeting of the Royal Society of Edinburgh, held on October 23, the following officers and members of council were elected:—*President,* the Right Hon. Lord Kelvin, G.C.V.O., F.R.S.; *vice-presidents,* Hon. Lord M'Laren, Prof. Flint, Dr. R. Munro, Sir John Murray, K.C.B., F.R.S., Dr. R. H. Traquair, F.R.S., Prof. Crum Brown, F.R.S.; *general secretary,* Prof. George Chrystal; *secretaries to ordinary meetings,*